(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 21 April 2005 (21.04.2005)

PCT

(10) International Publication Number WO 2005/035558 A2

(51) International Patent Classification?: C07K 14/29, C12N 15/31, C07K 16/12, A61K 39/02, 39/295

(21) International Application Number:

PCT/IB2004/003339

(22) International Filing Date: 1 October 2004 (01.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2003/0743

7 October 2003 (07.10.2003)

(71) Applicants and

- (72) Inventors: THIRY, Michel [BE/BE]; Cul du Bief 166, B-4870 Trooze (BE). DHEUR, Ingrid [BE/BE]; Rue Renkin 32, B-4031 Liege (BE).
- (74) Agents: GATES, Marie, Christina, Esther et al.; Tomkins & Co., 5, Dartmouth Road, Dublin 6 (IE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

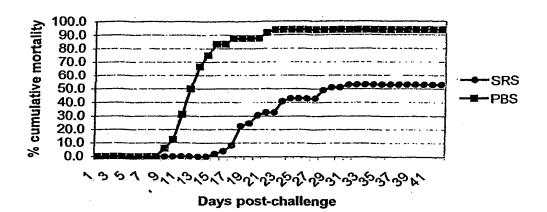
Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PISCIRICKETTSIA SALMONIS ANTIGENS AND USE THEREOF

EFFICACY LAB TRIAL SRS VACCINE



(57) Abstract: The present invention discloses novel proteins, e.g., antigens, from *Piscirickettsia salmonis*. The present invention further discloses nucleic acids that encode these proteins. The present invention also discloses the use of the proteins, e.g., antigens, and nucleic acids to prepare vaccines against salmonid rickettsial septicemia (SRS). The present invention further provides recombinant *Yersinia ruckericells* to be used to construct vaccines against SRS. The present invention also discloses vaccines that can be used to protect fish from *Piscirickettsia salmonis*, as well as other pathogens. In addition, the present invention discloses methods of using the vaccines of the present invention to protect fish from SRS as well as from other pathogenic diseases.

005/035558 42

THIS PAGE LEFT BLANK